## Comment Letter I49

149-1

## Hingtgen, Robert J

Sent:

kevin=kkeane.com@sendgrid.info on behalf of Kevin Keane <kevin@kkeane.com>Tuesday, February 11, 2014 12:41 PM

To

Hingtgen, Robert J Soitec PEIR comments Soitec PEIR - comments.pdf

Subject: Attachments:

Dear Mr. Hingtgen,

Attached please find my comments regarding the Soitec PEIR. I hope that it is in acceptable form.

Sincerely,

Kevin Keane

# **Response to Comment Letter I49**

## Kevin Keane February 11, 2014

This comment is introductory in nature and does not raise an environmental issue.

October 2015

Kevin Keane 38208 Tierra Real Rd Boulevard, CA 91905 Tel 760-721-8339 kevin@kkeane.com

FEBRUARY 11, 2014

## Robert Hingtgen

County of San Diego Department of Planning and Development Services 5510 Overland Avenue, Suite 110 San Diego, CA 92123



3800 12-010 (GPA); Tierra Del Sol; 3300 12-010 (MUP), 3600 12-005 (REZ), 3921 77-046-01 (AP); Rugged Solar; 3300 12-007 (MUP); Environmental Log No.: 3910 120005 (ER)

Dear Mr. Hingtgen,

I would like to make the following comments regarding the Soitec PEIR

#### NOISE AND OTHER ISSUES - WIND

The EIR does not include an analysis of the impact of strong winds/storms. The Boulevard area has some of the strongest winds in the state, with frequent sustained winds of 70 mph, and gusts up to 100 mph.

Will wind get caught in the trackers, making them act as a sail and possibly even get damaged? Will openings in the structure make noise similar to a whistle? Will any movable part of the structure be able to hit other structures and make them ring like a bell? Will all parts of the project withstand wind, and sand or rocks thrown by the wind, without damage? If parts of the project are already damaged, will they cause additional noise?

Wind storms generally carry lose debris with them, as well as loosen materials that are damaged or insufficiently attached. In the worst-case scenario, how far would a tracker panel be blown by a 100 mph wind gust, and how much noise and damage would it cause to neighboring properties?

### NOISE - USE OF HELICOPTERS

The use of helicopters may be of serious concern for the area. Border Patrol already uses helicopters and drones in the area. These overflights are generally short (seconds) but very annoying. Considering that Boulevard is a very quiet

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The County acknowledges the commenter's concerns regarding strong winds and noise. Noise related to wind movement is created when wind passing over a surface causes the surface to vibrate. The trackers are rigid panels that are not prone to vibration, and therefore the solar installation would not be anticipated to increase noise levels generally associated with existing wind patterns in the region. Structural engineering for the tracker assemblies will account for wind loading factors based on climatological conditions in this region to avoid failure of project components under strong wind conditions. Rocks and debris in heavy winds are generally entrained in the airflow close to the ground, which typically would occur beneath the elevation of the tracker panels, thereby avoiding most of the potential for damage from wind-driven materials. Potential noise and damage from a solar panel detached from its mounting and propelled by 100-mile-per-hour winds would be speculative, and beyond the scope of reasonableness for the Draft Program Environmental Impact Report (DPEIR) analysis. As indicated in response to comment I42-2, wind speeds at the Proposed Project sites would exceed 15 miles per hour approximately 6.5% of the time based on proprietary data from a meteorological testing (MET) station located on site that has been operational since August 2012. As described in Section 1.0 of the DPEIR, each tracker would be mounted on a 28-inch steel mast and

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would be installed taking into consideration wind loading and soil conditions at the site. Specifically, the masts would be installed by either (1) inserting the mast into a hole up to 20 feet deep and encasing it in concrete, (2) vibrating the mast into the ground up to 20 feet deep, or (3) attaching the mast to a concrete foundation sized to adequately support the trackers. In addition, trackers would be positioned in a horizontal "stow" mode during any high wind condition. Based on the wind data, trackers would go into horizontal "stow" mode (for high winds) approximately 0.01% of the time. The wind speed at which a tracker would go into "stow" mode ranges from 14 meter per second (m/s) to 18m/s, which equates to approximately 30 miles per hour (mph) to 40 mph. Based on the environmental analysis, it has been determined that the solar trackers would pose a danger to nearby residents during wind storms.

I49-3 The County acknowledges the commenter's concerns regarding helicopter overflights. Helicopter noise impacts were evaluated in the DPEIR (see Section 2.6, Noise). With the implementation of mitigation, it was determined that noise impacts, including from helicopter noise, would be less than significant. Refer to mitigation measures M-N-TDS-2 AND M-N-TDS-5 regarding the control of helicopter noise. However, frequency and duration must also be considered in the context of potential annoyance level from helicopter

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town, each overflight of these aircrafts is highly disruptive. Having helicopters hover for up to five minutes at very low 149-3 altitude will be dramatically worse. Cont. HEAT The EIR does not include an analysis of the impact from heat dissipation from the concentrated photo voltaic elements. Currently, without the solar system, much of this heat is generally absorbed by the ground during the daytime, and slowly released during the night. The CPV elements require cooling to be immediate; the collected heat has to be radiated away from heat sinks during the daytime. Given the massive scale of the proposed projects, many megawatts of heat have to be disposed of - probably approximately 1.5 W for each 1 W of power generated. Thus, in order to generate 60 MW (Tierra Del Sol) to 80 MW (Rugged), during the daytime, the facilities have to 149-4 dissipate, conservatively estimated, 90 MW and 120 MW in heat, respectively. Hot air rises. How does adding such a large amount of energy to a relatively small site affect local wind patterns or cause other changes to the microclimate? Will it cause additional evaporation, and will it contribute to, or reduce the amount of local rain fall? Rising hot air in our area often causes dust devils; some neighbors have reported dramatic damage from them, such as Will the wind caused by the rising air potentially fan any flames in case of a wild fire or fire in the facility? TELECOMMUNICATION The proposed projects will require phone and data connections for telemetrics, security, and other purposes. Boulevard is notoriously underserved in terms of telecommunications. Currently, landline phone service is the only form of telecommunication available to residents - and AT&T plans to discontinue landline phone service nationwide within the next six years. What types of communication lines will Soitec have to install for the proposed projects? How many miles of fiberoptic 149-5 cable (or other media) will be installed? Will wireless communication be used, and if so, what will be impact of radiation from the wireless communication? What will be the environmental impact from these lines during construction, and during operation? As mitigation, will residents be able to benefit from any new telecom facilities? Sincerely **Kevin Keane** BOULEVARD HOME OWNER Page 2

operations. Helicopters would only be used temporarily during construction in difficult access locations of support poles for the Tierra del Sol gen-tie line, whereas the border patrol operations are permanent (and therefore carry a higher likelihood of leading to annoyance). Once gen-tie line construction is complete, helicopter inspection of the line would occur approximately once per year. This frequency would limit potential annoyance, probably not altering the level of annoyance already established by border patrol helicopter operations.

Please refer to the response to comment I95-18 regarding the operating temperatures of the solar modules and heat dissipation from the modules. Based on this data, the potential effects postulated by the commenter are not anticipated, such as changes in wind patterns (including dust devils), microclimate, evaporation, or rainfall. The commenter does not provide any support for the estimates of energy required for heat dissipation, therefore further response cannot be provided.

Regarding potential for solar farm-caused winds to fan flames from a fire: regardless of whether solar heating on the ground or solar panels occurs, combustion releases heat, which rises. It is not uncommon for very large wildfires to increase wind speeds from the rising column of hot air that draws in cooler air from below.

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However, this phenomenon occurs naturally now and would not be expected to be different with the Proposed Project in place. The difference with the Proposed Project is that native fuel sources would no longer be available to an advancing wildfire, resulting in reduced fire spread rates, reduced fire intensity, and reduced flame lengths at the perimeter and throughout the Proposed Project site.

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Communication lines installed as part of the Proposed Project would include a telecom wire underslung on the gen-tie. No other telecom facilities would be installed. Potential environmental impacts from the telecom wire are considered and addressed throughout the DPEIR as part of the gen-tie construction and operation (for example, see Section 2.3 for a discussion of potential impacts related to electrocution and/or collisions by special-status bird or bat species). As described in Section 1.0 of the DPEIR, the Proposed Project would be monitored off site through a supervisory control and data acquisition (SCADA) system. The commenter is referred to the response to comment I38-10 with regards to potential impacts from radio frequency radiation (RFR). The provision of telecommunications service is limited to those utilities regulated by the California Public Utilities Commission.

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